19. Explain how to implement synchronization in Java.

20. Explain the life cycle of an applet. How will you pass parameters to applet?

Shanmuga Industries Ar... Science College
T.V.Malai

NOVEMBER/DECEMBER 2025

FCA31/FCS31/FSC31/CCA31/CCS31/ CSC31 — PROGRAMMING IN JAVA

Time : Three hours Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What is the use of import statement?

2. Show how to declare and use enums.

3. What is called casting?

4. Identify the literal values for all primitive types.

5. Design a Java code to read and display the array elements in order.

6. Build a code to catch an exception using try and catch.

7. Show the steps to create the file using the File class.

8. Narrate the function of to String( ), hashCode( ).

9. List the steps for developing an applet program.

10. Recall some Swing component classes.

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Show that how to declare and use interfaces with a Java program.

Or

(b) Explain about the importance on inheritance and polymorphism.

12. (a) Summarize the behavior of static variables and methods in Java.

Or

(b) Develop a program to show the behaviour of overloaded constructor.

13. (a) Develop a java program to arrange the strings in alphabetical order.

Or

(b) Explain the methods in ArrayList class.

14. (a) Design a java program to create two threads and execute simultaneously.

Or

(b) Explore the different states of the thread. Explain the thread life cycle.

15. (a) Build a java program to develop Login Window using AWT controls.

Or

(b) Design a java swing program to find the fibanacci series.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Explain the differences between overloaded and overridden methods with examples.

17. Develop a Java program to find the factorial value of the given number using conditional and relational operators.

18. Illustrate exception handling with suitable example.